

## Product Highlights

- **D-Link Green 3.0**  
Advanced power saving technologies
- **Robustness & Security**  
IEEE802.1X port-based Access Control, Port Security, D-Link Safeguard Engine and Traffic Segmentation
- **Advanced QoS DSCP and Bandwidth Control**
- **Useful L2 Features**  
Equipped with a complete line up of L2 features, these switches include IGMP Snooping, Port Mirroring, Spanning Tree, and Link Aggregation Control Protocol (LACP)



## DGS-1210

# 10/16/24/48-Port Web Smart Switch

## Key Features

### Green Technology

- Power saving by link status
- Power saving by cable length
- Provides continuous, reliable and ecofriendly operation
- Time-based PoE (DGS-1210-10P only)

### Security Features

- Access Control List secures network
- D-Link Safeguard Engine protects CPU from Broadcast/Multicast/Unicast flooding
- Port Security supports 64 MACs per port

### Intuitive Management

- Manage using SmartConsole or webbased GUI
- Built-in MIB browser for SNMP Management
- D-View 6.0 module support
- Compact CLI through Telnet

### VoIP Deployment

- Highest priority for VoIP services
- Auto Voice VLAN

### QoS

- Ensure efficient delivery of timesensitive data
- Supports IEEE 802.1p QoS, up to 4 802.1p Priority Queues per port
- DSCP

### Advanced Features

- Loopback Detection auto disables port when loop is detected
- Cable Diagnostics allows administrator to determine cable status
- Combined copper/SFP ports for increased flexibility
- Configurable MDI/MDIX
- LLDP/LLDP-MED (DGS-1210-10P only)

### Trap & Logs

- SNMP Trap supports link and STP state change
- Trap for SmartConsole Utility

### Online Help

- Link to local support web site
- Downloadable user guide
- Real-time manual checks

D-Link's DGS-1210 Series is the latest generation of Web Smart Switches featuring D-Link Green Technology. The series integrates advanced management and security functions that provide performance and scalability. Additionally, the DGS-1210-10P's 10/100/1000 Mbps ports are PoE-enabled, offering ease-of-use and green features like timebased PoE, which allows for the power to be shut off at a predetermined time. Compliant with 802.3af and 802.3at Pre-Standard, this switch is capable of feeding power to devices up to 30 Watts. Management options for the switches include SNMP, Web Management, SmartConsole Utility, and Compact Command Lines. The series also supports ACL filtering and D-Link's Safeguard Engine. The DGS-1210 Series uses Auto Voice VLAN, ensuring higher priority for voice traffic. The DGS-1210-10P comes with a fanless design in a compact 13" desktop enclosure, the DGS-1210-16 and DGS-1210-24 feature a fanless design in 19" metal cases. The DGS-1210-48 is equipped with two smart fans which are set to low speed by default and will automatically switch to high speed once the temperature threshold is reached. A fanless design allows for quieter operation and guarantees an extended lifetime, while smart fans help to save power.

## D-Link Green

D-Link is constantly striving to take the lead in developing innovative technology that allows for power-saving without sacrificing operational performance or functionality. The DGS-1210 Series automatically detects the length of connected cables and can adjust power usage by saving energy on shorter cable connections of up to 20 meters. Link status drastically reduces power consumption by automatically toggling ports without a link to sleep mode. The DGS-1210 Series takes the approach to green IT one step further by incorporating a special chipset with advanced silicon technology.

## Seamless Intergration

The DGS-1210 Series comes with Ethernet and Gigabit copper ports capable of connecting to existing Cat.5 twisted-pair cables. Additionally, the last 2 or 4 ports of the DGS-1210 Series combine SFP and copper connectivity into one port and therefore provide a more flexible solution for upstream or downstream server connections via fiber interface. Using the default presets, the administrator can quickly set up the switch without reconfiguring any settings.

## Extensive Layer 2 Features

Equipped with a complete lineup of L2 features, these switches include IGMP Snooping, Port Mirroring, Spanning Tree and Link Aggregation Control Protocol (LACP). The IEEE 802.3x Flow Control function allows servers to directly connect to the switch for fast, reliable data transfer. At 2000 Mbps Full Duplex, the Gigabit ports provide high-speed data pipes to servers with minimum data transfer loss. Network maintenance features include Loopback Detection and Cable Diagnostics. Loopback Detection is used to detect loops created by a specific port and automatically shut down the affected port. The Cable Diagnostic feature, designed primarily for administrators and customer service representatives, can rapidly discover the type of error and determine the cable quality.

## QoS, Bandwidth Control

The switches are perfect for deployment in a VoIP environment, as they support Auto Voice VLAN and Differentiated Services Code Point (DSCP) QoS for VoIP. Auto Voice VLAN will automatically place voice traffic from an IP phone to an assigned VLAN and by doing so enhance the VoIP service. With a higher priority and individual VLAN, this feature guarantees the quality and security of VoIP traffic. DSCP marks parts of an IP packet, enabling different levels of service to be assigned for network traffic. With Bandwidth Control, network administrators can reserve bandwidth for important functions that require a larger bandwidth or might have high priority.

## Secure your Network

D-Link's innovative Safeguard Engine protects the switches against traffic flooding caused by virus attacks. The switches also support 802.1X portbased authentication, allowing the network to be authenticated through external RADIUS servers. In addition, the Access Control List (ACL) feature enhances network security and helps to protect the internal IT network. The DGS-1210 Series includes ARP Spoofing Prevention, which protects from attacks on the Ethernet network that may allow an intruder to sniff data frames, modify traffic, or bring traffic to a halt altogether by sending fake ARP messages to the network. To prevent ARP Spoofing attacks, the switch uses Packet Control ACLs to block invalid packets that contain fake ARP messages. For added security, the DHCP Server Screening feature screens rogue DHCP server packets from user ports to prevent unauthorized IP assignments.

## Versatile Management

The DGS-1210 series provides a SmartConsole utility and a web-based management interface that enables administrators to remotely control their network down to the port level. The SmartConsole easily allows customers to discover multiple D-Link Web Smart Switches within the same L2 network segment. With this utility, users do not need to change the IP address of their PC. It also simplifies the initial setup of the Smart Switches. Switches within the same L2 network segment that are connected to the user's PC are displayed on screen for instant access. This allows extensive switch configuration and basic setup of discovered devices including password changes and firmware upgrades. The DGS-1210 Series also supports D-View 6.0 and Compact Command Line Interface (CLI) through Telnet. D-View 6.0 is a Network Management System that allows for the central management of critical network characteristics such as availability, reliability, resilience, and security. CLI management of the switches is possible via Telnet. This makes it possible to adjust basic settings, passwords, configuration files, and firmware with ease.



If the worst should happen to your network you need the very best support and fast. Downtime costs your business money. D-Link Assist maximises your uptime by solving technical problems quickly and effectively. Our highly trained technicians are on standby around the clock, ensuring that award-winning support is only a phone call away.

With a choice of three affordable service offerings covering all D-Link business products, you can select the package that suits you best:

### D-Link Assist Gold - for comprehensive 24-hour support

D-Link Assist Gold is perfect for mission-critical environments where maximum uptime is a high priority. It guarantees four hour around-the-clock response. Cover applies 24/7 for every day of the year including holidays.

### D-Link Assist Silver - for prompt same-day assistance

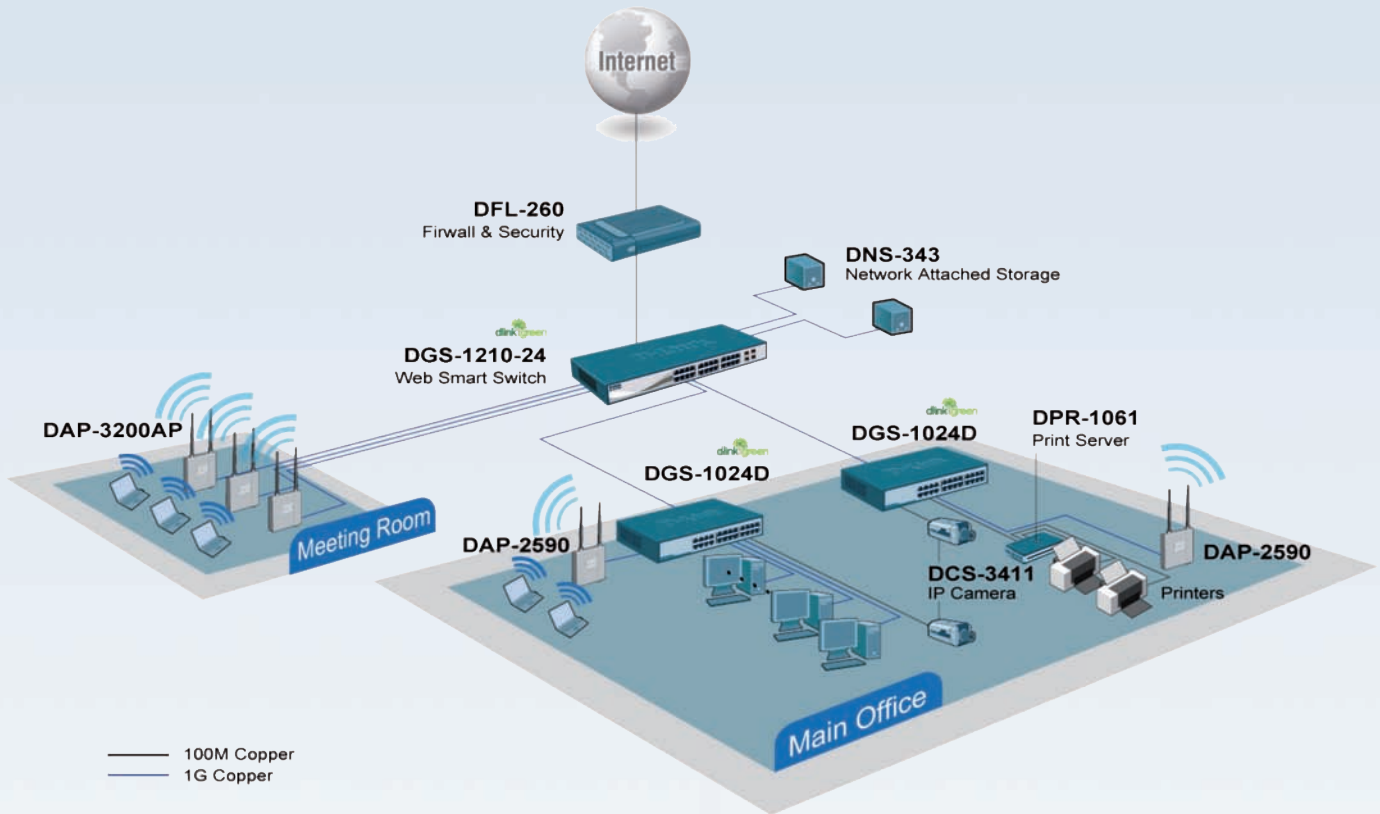
D-Link Assist Silver is designed for 'high availability' businesses that require rapid response within regular working hours. It provides a four hour response service Monday to Friday from 8am to 5pm, excluding holidays.

### D-Link Assist Bronze - for guaranteed response on the next business day

D-Link Assist Bronze is a highly cost-effective support solution for less critical environments. Response is guaranteed within eight business hours Monday to Friday from 8am to 5pm, excluding holidays.

D-Link Assist can be purchased together with any D-Link business product. So whether you're buying switching, wireless, storage, security or IP Surveillance equipment from D-Link, your peace of mind is guaranteed. D-Link Assist also offers installation and configuration services to get your new hardware working quickly and correctly.

**Deploying the DGS-1210 Series in an Office Environment**



Technical Specifications	DGS-1210-10P	DGS-1210-16	DGS-1210-24	DGS-1210-48
<b>General</b>				
Port Standards & Functions	<ul style="list-style-type: none"> <li>• IEEE 802.3 10BASE-T Ethernet</li> <li>• IEEE 802.3u 100BASE-TX Fast Ethernet</li> <li>• IEEE 802.3ab 1000BASE-T</li> <li>• Gigabit Ethernet</li> <li>• IEEE 802.3x Flow Control for Full-Duplex Mode</li> <li>• Auto-negotiation</li> </ul>			
Number of Ports	• 8 PoE 10/100/1000 Mbps	• 12 10/100/1000 Mbps	• 20 10/100/1000 Mbps	• 44 10/100/1000
Network Cables	<ul style="list-style-type: none"> <li>• UTP Cat. 5, Cat. 5e (100 m max.)</li> <li>• EIA/TIA-568 100-ohm STP (100 m max.)</li> </ul>			
Full/Half Duplex	<ul style="list-style-type: none"> <li>• Full/half duplex for 10/100 Mbps speeds</li> <li>• Full duplex for Gigabit speed</li> </ul>			
Media Interface Exchange	• Auto or configurable MDI/MDIX			
<b>Performance</b>				
Switching Capacity	• 20 Gbps	• 32 Gbps	• 48 Gbps	• 96 Gbps
Transmission Method	• Store-and-forward			
MAC Address Table	• 8,000 entries per device			
MAC Address Update	<ul style="list-style-type: none"> <li>• Up to 256 static MAC entries</li> <li>• Enable/disable auto-learning of MAC addresses</li> </ul>			

Technical Specifications	DGS-1210-10P	DGS-1210-16	DGS-1210-24	DGS-1210-48
Maximum 64 bytes packet forwarding rate	• 14.88 Mpps	• 23.8 Mpps	• 35.7 Mpps	• 71.4 Mpps
RAM Buffer	• 512 KB per device	• 512 KB per device	• 512 KB per device	• 1 MB per device
<b>PoE*</b>				
PoE Standard	• 802.3af & Pre-standard 802.3at			
PoE Capable Ports	• Ports 1 to 8: • 15.4 W or 30 W	• Max. 30 W on 2 • 10/100/1000 Mbps ports	• Max. 15.4 W on 4 • 10/100/1000 Mbps ports	• Max. 7.5 W on 8 • 10/100/1000 Mbps ports
PoE Power Budget	• Max. 78 W			
<b>Physical &amp; Environmental</b>				
AC Input	• 100 to 240 VAC 50/60 Hz internal universal power supply			
Maximum Power Consumption	• 109.6 W (PoE on), • 14.45 W (PoE off)	• 17.4 W	• 24.1 W	• 59.1 W
Standby Power Consumption	• 7 W/110 V, 7.8 W/240 V	• 4.9 W/110 V, 5 W/240 V	• 6 W/110 V, 6.2 W/240 V	• 19.2 W/110 V, 20.1 W/240 V
Fan Quantity	• 0	• 0	• 0	• Two smart fans
Acoustics	• 0 dB(A)	• 0 dB(A)	• 0 dB(A)	• 0
Heat Dissipation		• 0	• 0	• 52.2 dB(A)
Operating Temperature	• 0° to 40° C			
Storage Temperature	• -10° to 70° C			
Operating Humidity	• 10% to 95% non-condensing			
Storage Humidity	• 5% to 95% non-condensing			
Dimensions	• 330 mm x 180 mm x 44 mm (13" desktop enclosure, 1U height)	• 440 mm x 210 mm x 44 mm (19" standard rack mounting width, 1U height)	• 440 mm x 210 mm x 44 mm (19" standard rack mounting width, 1U height)	• 440 mm x 250 mm x 44 mm (19" standard rack mounting width, 1U height)
Weight	• 1.84 kg	• 2.87 kg	• 2.97 kg	• 4.04 kg
Diagnostic LEDs	<ul style="list-style-type: none"> <li>• Power (Per device)</li> <li>• Fan error (Per device, optional)</li> <li>• Link/Activity/Speed (Per 10/100/1000 Mbps port)</li> <li>• Link/Activity/Speed (Per SFP port)</li> </ul>			
Certifications	<ul style="list-style-type: none"> <li>• FCC Class A</li> <li>• CE Class A</li> <li>• IC Class A</li> <li>• VCCI Class A</li> <li>• C-Tick</li> </ul>			
Safety	<ul style="list-style-type: none"> <li>• cUL,</li> <li>• LVD</li> </ul>			

### Software Features

#### L2 Features

- MAC Address Table
  - 8 K
- Flow Control
  - 802.3x Flow Control
  - HOL Blocking Prevention
- IGMP Snooping
  - IGMP v1/v2 Snooping
  - Supports 256 IGMP groups
  - Supports at least 64 static multicast addresses
  - IGMP per VLAN
  - Supports IGMP Snooping Querier
- Spanning Tree Protocol
  - 802.1D STP
  - 802.1w RSTP
- Loopback Detection
- 802.3ad Link Aggregation
  - DGS-1210-10P:  
Max. 5 groups per device/8 ports per group
  - DGS-1210-16/DGS-1210-24/DGS-1210-48:  
Max. 8 groups per device/8 ports per group
- Port Mirroring
  - One-to-One
  - Many-to-One
  - Supports Mirroring for Tx/Rx/Both
- Cable Diagnostics
- Configurable Auto MDI/MDIX
- Multicast Filtering
  - Forwards all unregistered groups
  - Filters all unregistered groups

#### VLAN

- 802.1Q
- VLAN Group
  - Max. 256 static VLAN groups
  - Max. 4094 VIDs
- Management VLAN
- Asymmetric VLAN
- Auto Voice VLAN
  - Max. 10 user defined OUI
  - Max. 8 default OUI

#### QoS (Quality of Service)

- 802.1p Quality of Service
- 4 queues per port
- Queue Handling
  - Strict
  - Weighted Round Robin (WRR)
- CoS based on
  - 802.1p Priority Queues
  - DSCP
  - ToS1
- Bandwidth Control
  - Port-based (Ingress/Egress, min. granularity for 10/100/1000Base-T ports is 64 Kb/s)

#### Access Control List (ACL)

- Max. 50 profiles
- Max. 240 rules shared by profiles
- ACL based on
  - MAC Address
  - IPv4 Address (ICMP/IGMP/TCP/UDP)
  - VLAN ID
  - 802.1p Priority
  - DSCP
- ACL Actions
  - Permit
  - Deny

#### Security

- 802.1X
- Port Security
  - Supports up to 64 MAC addresses per port
- Broadcast/Multicast/Unicast Storm Control
- Static MAC
- D-Link Safeguard Engine
- DHCP Server Screening\*
- ARP Spoofing Prevention\*
  - Max. 64 entries
- SSL\*
- Supports v1/v2/v3
  - Supports IPv4

#### MIB

- 1213 MIB II
- 1493 Bridge MIB
- 1907 SNMP v2 MIB
- 1215 Trap Convention MIB
- 2233 Interface Group MIB
- D-Link Private MIB

#### RFC Standard Compliance

- RFC 768 UDP
- RFC 791 IP
- RFC 792 ICMP
- RFC 793 TCP
- RFC 826 ARP
- RFC 854 Telnet Server
- RFC 855 Telnet Server
- RFC 856 Telnet Binary Transmission
- RFC 858 Telnet Server
- RFC 896 Congestion Control in TCP/IP Network
- RFC 903 Reverse Address Resolution Protocol
- RFC 951 BootP Client
- RFC 1155 MIB
- RFC 1157 SNMP v1
- RFC 1191 Path MTU Discovery
- RFC 1212 Concise MIB Definition
- RFC 1213 MIB II, IF MIB
- RFC 1215 Traps for use with the SNMP

- RFC 1239 Standard MIB
- RFC 1350 TFTP
- RFC 1493 Bridge MIB
- RFC 1519 CIDR
- RFC 1945 HTTP/1.0
- RFC 2131 DHCP
- RFC 2132 DHCP Options and BOOTP Vendor Extensions
- RFC 2138 Radius Authentication
- RFC 2233 Interface MIB
- RFC 2578 Structure of Management Information Version 2 (SMIPv2)
- RFC 2647 802.1p
- RFC 3416 SNMP
- RFC 3417 SNMP
- RFC 3621 Power Ethernet

#### Management

- Web-based GUI
- Compact CLI through Telnet
- Telnet Server
- TFTP Client
- SNMP
  - Supports v1/v2/v3\*
- SNMP Trap
  - Trap for SmartConsole Utility
- System Log
  - Max. 500 log entries
  - Supports IPv4 log server
- BootP/DHCP Client
- Time Setting
  - SNTP
- LLDP, LLDP-MED
- Time-based PoE

**Optional Products**

**Optional SFP Transceivers**

DEM-310GT	<ul style="list-style-type: none"> <li>• 1000BASE-LX, Single-mode, 10 km</li> </ul>
DEM-311GT	<ul style="list-style-type: none"> <li>• DGS-1210-10P: 8 PoE 10/100/1000 Mbps, 2 combo 10/100/1000BASE-T/SFP</li> <li>• DGS-1210-16: 12 10/100/1000 Mbps, 4 combo 10/100/1000BASE-T/SFP</li> <li>• DGS-1210-24: 20 10/100/1000 Mbps, 4 combo 10/100/1000BASE-T/SFP</li> <li>• DGS-1210-48: 44 10/100/1000 Mbps, 4 combo 10/100/1000BASE-T/SFP</li> </ul>
DEM-312GT2	<ul style="list-style-type: none"> <li>• UTP Cat. 5, Cat. 5e (100 m max.)</li> <li>• EIA/TIA-568 100-ohm STP (100 m max.)</li> </ul>
DEM-314GT	<ul style="list-style-type: none"> <li>• Full/half duplex for 10/100 Mbps speeds</li> <li>• Full duplex for Gigabit speed</li> </ul>
DEM-315GT	<ul style="list-style-type: none"> <li>• Auto MDI/MDIX adjustment for all twisted-pair ports</li> </ul>
DEM-210	<ul style="list-style-type: none"> <li>• 100BASE-FX, Single-mode, 15 km</li> </ul>
DEM-211	<ul style="list-style-type: none"> <li>• 100BASE-FX, Multi-mode, 2 km</li> </ul>

**Optional WDM SFP Transceivers**

DEM-220R	<ul style="list-style-type: none"> <li>• 100BASE-BX, Wavelength Tx:1550 nm Rx:1310 nm, Single-mode, 20 km</li> </ul>
DEM-220T	<ul style="list-style-type: none"> <li>• 100BASE-BX, Wavelength Tx:1550 nm Rx:1310 nm, Single-mode, 20 km</li> </ul>
DEM-330T	<ul style="list-style-type: none"> <li>• 1000BASE-LX, Wavelength Tx:1550 nm Rx:1310 nm, Single-mode, 10 km</li> </ul>
DEM-330R	<ul style="list-style-type: none"> <li>• 1000BASE-LX, Wavelength Tx:1310 nm Rx:1550 nm, Single-mode, 10 km</li> </ul>
DEM-331T	<ul style="list-style-type: none"> <li>• 1000BASE-LX, Wavelength Tx:1550 nm Rx:1310 nm, Single-mode, 40 km</li> </ul>
DEM-331R	<ul style="list-style-type: none"> <li>• 1000BASE-LX, Wavelength Tx:1310 nm Rx:1550 nm, Single-mode, 40 km</li> </ul>



For more information: [www.dlink.com](http://www.dlink.com)

**D-Link European Headquarters.** D-Link (Europe) Ltd., D-LinkHouse, Abbey Road, Park Royal, London, NW10 7BX.  
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